

## Claims

1. Method for delivering a fluid, in which the fluid is fed from a fluid source of a fluid-delivery device (1) and is delivered by a discharge orifice (12) assigned to the delivery device (1), characterized by the fact that, before the fluid is delivered through the discharge orifice (12), it is heated or cooled by flowing through a heat-transfer chamber (36-46), which contains a fluid-permeable structure, which has a large number of communicating cavities and through which the fluid flows.
2. Method in accordance with Claim 1, characterized by the fact that the fluid-permeable structure is essentially rigid and consists of a sintered material, a sintered metal, a woven material, a metal fabric, or a cellular plastic.
3. Method in accordance with Claim 1 or Claim 2, characterized by the fact that the fluid is heated or cooled as it flows through the heat-transfer chamber (36-46) and at the same time is filtered by the fluid-permeable structure.
4. Method in accordance with any of the preceding claims, characterized by the fact that the inner surface of the heat-transfer chamber (36-46) is brought to a higher or lower temperature than the fluid flowing into it, and that the fluid-permeable structure is in contact with the inner surface of the heat-transfer chamber (36-46).

5. Method in accordance with one or more of the preceding claims, characterized by the fact that the fluid flows through several series-connected or parallel-connected heat-transfer chambers (36-46) to be heated or cooled.
6. Method in accordance with any of the preceding claims, characterized by the fact that the fluid is a liquid, especially a fluid plastic, such as hot-melt adhesive, and is heated by flowing through the heat-transfer chamber (36-46).
7. Method in accordance with any of the preceding claims, characterized by the fact that the fluid is a gas, preferably air, and is heated by flowing through the heat-transfer chamber (36-46).
8. Device for delivering fluid, with a flow channel that can be connected with a fluid source and that opens into a discharge orifice (12) for delivering the fluid, characterized by a heat-transfer chamber (36-46) for heating or cooling the fluid, which contains a fluid-permeable structure that has a large number of communicating cavities.
9. Device in accordance with Claim 8, characterized by the fact that the fluid-permeable structure consists of a sintered material, a sintered metal, a woven material, a metal braid, or an open-pored, essentially rigid cellular plastic.

10. Device in accordance with Claim 9, characterized by the fact that the heat-transfer chamber (36-46) is formed by a section of the flow channel, into which the fluid-permeable structure is inserted.
11. Device in accordance with Claim 10, characterized by the fact that the fluid-permeable structure is designed essentially as a cylindrical body, which is inserted in an essentially cylindrical bore (50).
12. Device in accordance with Claim 11, characterized by the fact that the fluid-permeable structure is a mechanically finished sintered metal part, preferably a turned sintered metal part.
13. Device in accordance with any of the preceding claims, characterized by the fact that the heat-transfer chamber (36-46) is formed in a housing (2), which is made of metal, and that the housing (2) contains heating elements for heating the housing (2).
14. Device in accordance with any of the preceding claims, characterized by the fact that the fluid-permeable structure is in contact with the inner wall of the bore (50) and fits into the bore.
15. Device in accordance with one or more of the preceding claims, characterized by the fact that the fluid-permeable structure is designed as part of a cartridge (70, 78), which can be inserted in the device (1), which can be detachably mounted in the device, and through which the fluid flows.

16. Device in accordance with Claim 15, characterized by the fact that the cartridge (70, 78) has at least one heating element (80).

17. Device in accordance with Claim 16, characterized by the fact that the heating element (80) is centrally installed inside the cartridge (78), and that the fluid-permeable structure surrounds the heating element (80).

18. Device in accordance with Claim 17, characterized by the fact that the heating element (80) is designed essentially as a cylindrical body, and the fluid-permeable structure is designed as a hollow cylinder surrounding the cylindrical body.

19. Device in accordance with Claim 17 and Claim 18, characterized by the fact that the heating element (72) is designed essentially as a hollow cylinder, and the fluid-permeable structure is installed inside the hollow cylinder.

20. Device in accordance with any of the preceding claims, characterized by the fact that it has a base (2), in which the one or more heat-transfer chambers (36-46) are installed, and that one or more application modules (4, 6, 8, 10) are provided, which are installed on the base (2) and contain the discharge orifice (12) for delivering the fluid.

21. Device in accordance with any of the preceding claims, characterized by the fact that the heat-transfer chamber (36-46), which contains the fluid-permeable structure, is connected into a liquid flow channel of the device (1).

22. Device in accordance with any of the preceding claims, characterized by the fact that the heat-transfer chamber (36-46), which contains the fluid-permeable structure, is connected into a gas flow channel of the device (1).

23. Device in accordance with any of the preceding claims, characterized by the fact that the fluid flows through several series-connected or parallel-connected heat-transfer chambers (36-46) to be heated.

24. Device in accordance with one or more of the preceding claims, characterized by the fact that several housing sections containing the heat-transfer chambers (36-46) are attached to one another, so that the fluid flows through the several heat-transfer chambers (36-46) successively or simultaneously.

25. Device in accordance with one or more of the preceding claims, characterized by the fact that at least one heat-transfer chamber (36-46) with the fluid-permeable structure is assigned to each application module (4-10).

26. Device in accordance with one or more of the preceding claims, characterized by the fact that the bore (50), in which the fluid-permeable structure can be inserted, can be sealed by a plug.

27. Cartridge (70, 78) for a fluid-delivery device with a fluid-permeable structure that serves the purpose of heat transfer.

28. Cartridge in accordance with Claim 27, characterized by the fact that the cartridge (70, 71) has a preferably hollow-cylindrical housing (72, 73), which holds the fluid-permeable structure.

29. Cartridge in accordance with any of the preceding claims, characterized by the fact that the fluid-permeable structure is a sintered part, preferably a sintered metal part (74).

30. Cartridge in accordance with any of the preceding claims, characterized by the fact that it is designed in accordance with at least one of Claims 16 to 18.

31. Heat-transfer device for fluid-delivery devices, with a housing (2) and a flow channel formed in the housing, through which fluid can flow, characterized by a heat-transfer chamber (36-46) for heating or cooling the fluid, which contains a fluid-permeable structure with a large number of communicating cavities.

32. Heat-transfer device in accordance with Claim 31, characterized by the fact that the fluid-permeable structure consists of a sintered material, a sintered metal (50), a woven material, a metal fabric, or an open-pored, essentially rigid cellular plastic.

33. Heat-transfer device in accordance with Claim 31, characterized by the fact that the heat-transfer chamber (36-46) is formed inside the housing (2).